Amendments to the Specification:

Page 1, delete line 1: -- ~~Description~~ --

amend the title in line 3 as follows:

-- ~~Receiver circuit~~ RECEIVER CIRCUIT --

replace the material on line 5 as follows:

-- ~~Technical field.~~ Background of the Invention:

Field of the Invention: --

amend the paragraph on lines 6-13 as follows:

The invention relates to a receiver circuit having an optical reception device and having an amplifier connected downstream of the optical reception device. Light incident on the optical reception device - for example light from an optical waveguide of an optical data transmission system - is detected by the optical reception device with the formation of an electrical signal (e.g. a photocurrent); the electrical signal is subsequently amplified by the amplifier connected downstream.

amend the paragraph on page 1, line 15 through page 2, line 7 as follows:

An optical receiver circuit having an optical reception device and having an amplifier connected downstream is described for example in the article "High Gain Transimpedance Amplifier in InP-Based HBT Technology for the Receiver in 40-Gb/s Optical-Fiber TDM Links" (Jens Müllrich, Herbert Thurner, Ernst Müllner, Joseph F. Jensen, Senior Member, IEEE, William E. Stanchina, Member, IEEE, M. Kardos, and Hans-Martin Rein, Senior Member, IEEE - IEEE Journal of Solid State Circuits, vol. 35, No. 9, September 2000, pages 1260 to 1265). In the case of this receiver circuit, at the input end there is a differentially operated transimpedance amplifier - that is to say a differential amplifier - connected by one input to a photodiode as a reception device. The other input of the differentially operated transimpedance amplifier is connected to a DC amplifier which feeds a "correction current" into the differential amplifier for the purpose of offset correction of the photocurrent of the photodiode. The magnitude of this "correction current" that is fed in amounts to half the current swing of the photodiode during operation.

Page 2, delete the paragraph on lines 13-16 as follows:

~~This object is achieved according to the invention by means of an optical receiver circuit having the features in accordance with patent claim 1.~~

~~Advantageous refinements of the invention are specified in subclaims.~~

Page 3, line 21 through page 4, line 9, amend the paragraph as follows:

A further essential advantage of the receiver circuit according to the invention consists in its optimal noise behavior. By way of example, if a photodiode is used as a reception device and a transimpedance amplifier is used as an amplifier, then the current noise has a particularly relevant part to play in the amplifier. However, the current noise generally becomes lower toward higher gains of the amplifier, so that, when the optimum - that is to say maximum - gain is chosen, the current noise of the amplifier also decreases. However, with other types of ~~amplifier~~ amplifiers, too, it generally holds true that the signal-to-noise ratio becomes better in the case of a higher gain. In summary, an optimum noise behavior can be achieved in the receiver circuit as a result of the user-end setting of the optimum gain value depending on the respective bandwidth requirement.

Page 7, delete lines 4 and 5:

-- ~~Exemplary embodiments:~~

~~For elucidating the invention~~ --

between lines 5 and 7, insert:

-- Brief Description of the Drawings: --

between lines 17 and 19, insert:

-- Description of the Preferred Embodiments: --

lines 19-26, amend the paragraph as follows:

Figure 1 ~~reveals~~ shows a receiver circuit 10 with a photodiode 20 as an optical reception device. A transimpedance amplifier 30 is arranged downstream of the photodiode 20. The transimpedance amplifier 30 comprises a voltage amplifier 40, for example an operational amplifier, and a feedback impedance 50. The feedback impedance 50 is connected to the input end of the operational amplifier 40 by its terminal E50 and to the output end of the operational amplifier 40 by its terminal A50.

Page 19, lines 1-8, amend the paragraph as follows:

In order to enable fully symmetrical operation of the optical receiver circuit in accordance with figure 3, ~~at the output end the control circuit 90 is connected by its output A80 both~~ the output A80 of the control circuit 80 is connected to the

feedback impedance 50 of the transimpedance amplifier 30 and to a feedback impedance 430 of the transimpedance amplifier 420, which likewise has an operational amplifier 440, so that the two feedback impedances 50 and 430 are driven in the same way.

Page 21, delete the entire page:

~~-- List of reference symbols~~

~~10 Receiver circuit~~

~~20 Photodiode~~

~~30 Transimpedance amplifier~~

~~40 Operational amplifier~~

~~50 Feedback impedance (transimpedance impedance)~~

~~60 Differential amplifier~~

~~70 Further differential amplifier~~

~~80 Control circuit~~

~~90 DCC circuit~~

~~100 Low pass filter~~

~~200/210 Switching transistor~~

~~220 Switching transistor~~

~~230 Linearly controllable MOS-FET transistor~~

~~240 Switching transistor~~

~~250 Switching transistor~~

~~300 Coding device~~

~~400 Additional receiver path~~

~~410 "Dummy" photodiode~~

~~420 Second transimpedance amplifier~~

~~500 Terminal pad~~

~~510 Terminal pad~~

~~520 Bonding wire~~

~~Sr Impedance specification signal~~

~~Sb User-end control signal~~

Page 22, amend the top line as follows:

~~Patent Claims~~ I Claim:

Page 26, amend the top line as follows:

~~Abstract~~ Abstract of the Disclosure

delete line 3: ~~Receiver circuit~~

amend the two paragraphs on lines 5-14 as follows:

~~The invention is based on the object of specifying a receiver circuit which can be used in particularly universal fashion.~~

~~This object is achieved according to the invention by means of a receiver circuit (10) having an optical reception device (20) and having an amplifier (30) connected to the reception device (20), the amplifier (30) having at least one control~~

~~terminal (S30), by means of which the gain (V) of the amplifier (30) can be changed over at least between two gain values at the user end.~~

A receiver circuit has an optical reception device and an amplifier connected to the reception device. The amplifier has at least one control terminal for changing the gain of the amplifier between at least two gain values. This receiver circuit enables an optimal optical sensitivity because the adjustable gain of the amplifier makes it possible to set the maximum gain of the amplifier depending on the prescribed bandwidth of the receiver circuit.

delete line 20: -- ~~Fig. 1~~ .--

Drawing Am ndments:

Fig. 1: The labels, feedback impedance, transimpedance amplifier, duty cycle control circuit, control circuit, voltage amplifier, and amplifiers, have been added. Resistor R_{PD} is now illustrated using the symbol for a resistor. The lead line associated with reference numeral 100 has been changed to an arrow.

Fig. 2: The label, coding device, has been added. Resistors RF1, RF2 and RF3 are now illustrated using the symbol for a resistor.

Fig. 3: The labels, feedback impedance, pad (2 occurrences), feedback impedance, duty cycle control circuit, control circuit, voltage amplifier, and amplifiers, have been added. Resistor R_{PD} is now illustrated using the symbol for a resistor.

Attachments: 3 Replacement sheets

3 Annotated sheets showing changes